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General Headquarters, Washington, D. C.

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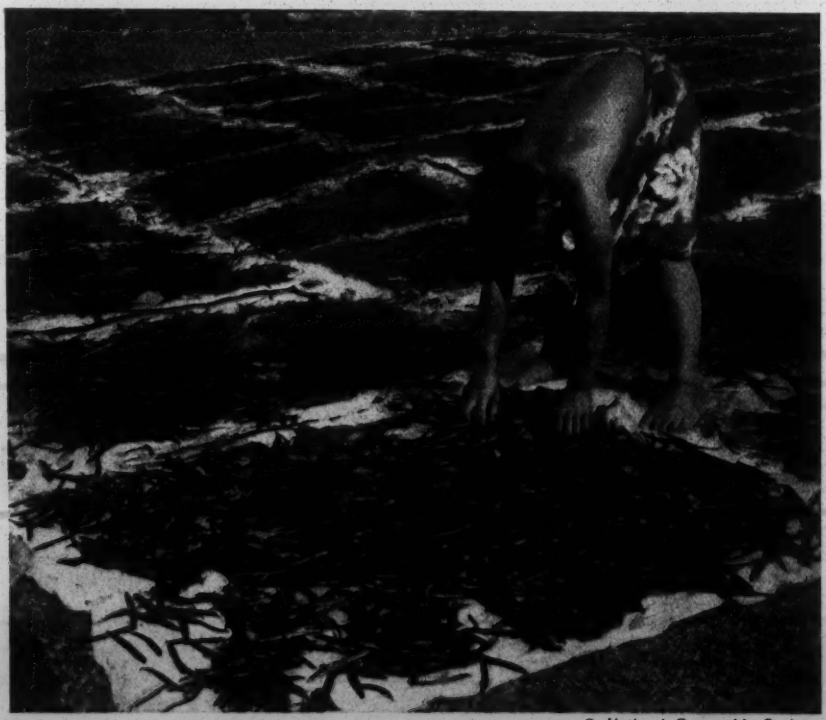

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DRYING VANILLA PODS IN TAHITI. (See Bulletin No. 3.)

HOW TO OBTAIN THE BULLETIN

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The British Empire Under a Microscope

FOR EIGHT MONTHS, beginning in April, the British Empire, counting one-fourth of the people of the world, will be put under the microscope at the British Empire Exhibition at Wembley, England. More than thirty million people are expected to inspect the world-girdling colonial union transported to England in miniature.

After walking down a street of Hongkong, China, a sight-seer in the London suburb next summer can cross the roadway to visit a native West African village. At the end of the street a duplicate of India's wondrous Taj Mahal will point its minarets into London's fogs, yet from this Mohammedan temple of temples to a Burmese pagoda will be only a few steps. Palm trees of Borneo may throw shadows over a Labrador Eskimo hamlet.

Proves Colony Idea Was Good

Every dominion and the mother country itself is to have a separate building to tell its story. Australia's three-and-one half acre palace will be surrounded with trees and shrubs of that island-continent's native flora. Canada, South Africa, Rhodesia, India, and others small and large, in turn will bring the essence of their plains and hills to Wembley.

But to the discerning the fruits and products of the dominion will be secondary to the fruits of England's three-hundred-year-old colonial policy in full panorama. The British "world's fair" will prove that the Stuart kings' idea of a colony producing raw materials which the mother country exchanges for manufactured products was successful.

This is the pageant of human activity the exhibit will present. One by one British colonized states will step forward and say, "I control the world's supply of this. More than 50 per cent of that comes from my soil." Malay states will tell the story of rubber and tin; South Africa of diamonds; India of jute, manganese, shellac, spices; Ceylon of tea, sugar and copra; Canada of asbestos, nickel, silver, wheat and lumber; Australia and New Zealand of wool and mutton; South Africa, Australia and Canada of gold—and so the parade will go.

United States Britain's Greatest Competitor

Some major products are conspicuous by their absence. Many of those missing are found in the United States. Another significant fact not apparent from the exposition is that the United States is the greatest competitor of England in the field of manufactured exports of machinery and cotton cloth. England, even with a world empire, still leans heavily on the United States for raw cotton, tobacco, corn, pork and for much beef, though she imports vast quantities of this staple from South American states and Australia. She requires American petroleum, pig iron, vanadium, lead, zinc, sulphur and phosphate.

England's colonies have done their part. Has England played its role according to the old "mercantilist" rule, as mill for its dominions? For Ceylon's

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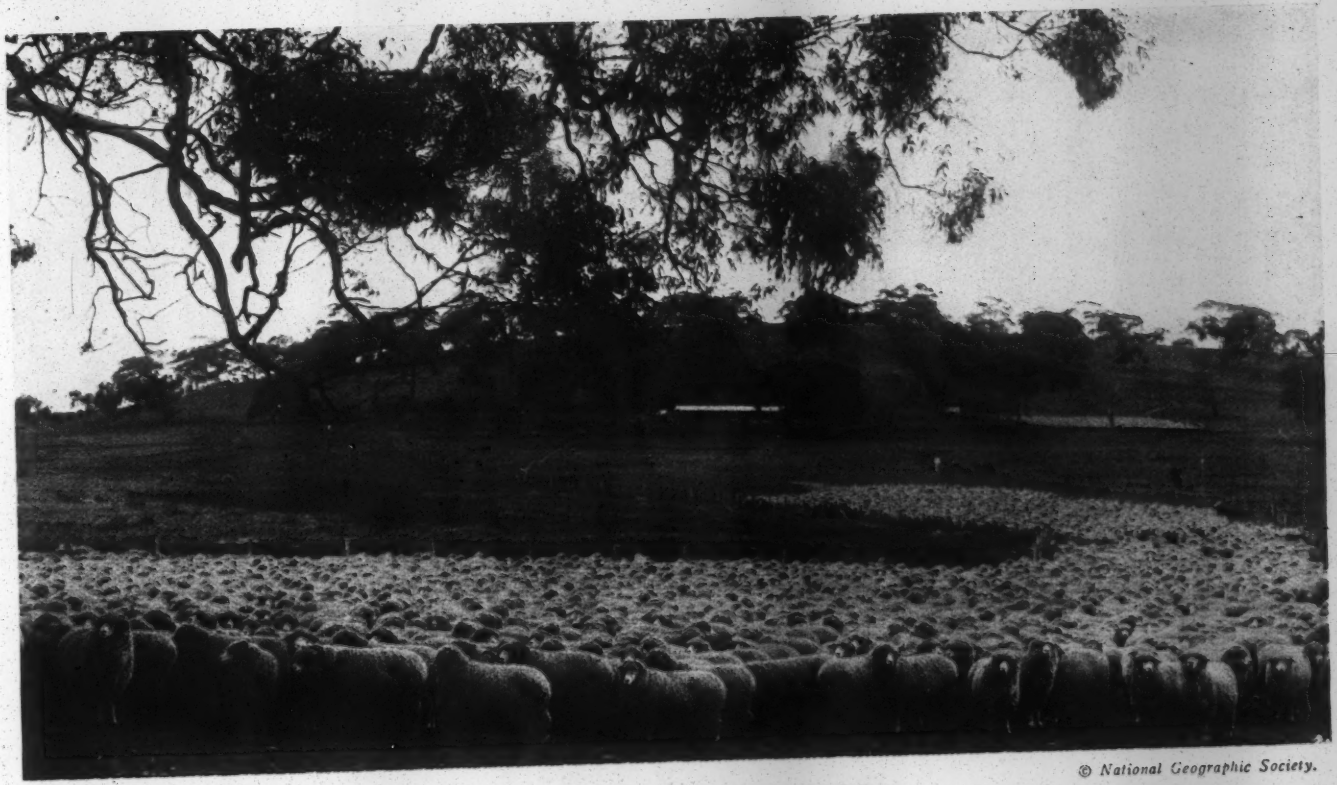

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A FLOCK OF SHEEP ON AN AUSTRALIAN FARM

Sheep are still one of Australia's chief contributions to the British Empire. Just as the farmer and his fence have encroached upon the cattle lands of our western plains, so they are encroaching upon the sheep ranges of Australia, with the result that the number of sheep is declining from year to year. (See Bulletin No. 1.)

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To Study One of America's Greatest Caves

THE NATIONAL Geographic Society has announced the sending of an expedition to explore Carlsbad Cavern, New Mexico, which may be America's largest and most beautiful cave, and to seek further remains of the ancient inhabitants of this continent.

Partial exploration of the Carlsbad Cavern revealed a corridor along which an inaugural parade might march farther than the mile route from the Capitol to the White House, and through most of the course would have much wider maneuver space than Pennsylvania Avenue affords.

A chamber of more startling magnificence than any artificial structure would provide an inaugural ballroom half a mile long by many hundreds of feet wide.

Tendril and Gargantuan Wall Decorations

The ornamentation ranges from bamboolike mazes of slender formations, which a brush of the hand will crush, to stalagmites 100 feet high and double that figure in base diameter.

Plants and bats will be two other subjects of the expedition's study.

The natural opening of the cave now is used exclusively by bats. At dusk, each evening, they begin to leave and for three hours the winged stream pours forth like smoke from a smokestack.

Dr. Willis T. Lee, who made the preliminary exploration of the Cavern and will head the National Geographic Society's Expedition, writes:

"Repellent as these little mammals are on close acquaintance, it is fascinating to watch the countless thousands of them leaving home, and to speculate on their destination and the nocturnal adventures awaiting them.

"It is equally fascinating in the early morning to watch these same countless thousands returning home; to see each little creature fold its wings in mid-air and dart downward into the cave with incredible speed. Within, each individual seeks its own chosen nook or crack in which it may hook a tiny claw and hang at ease until darkness again calls it forth."

Bats Prevent Use of Natural Entrance

The Cavern now is remote from beaten travel routes, and after arrival the visitor is precluded from the natural entrance, at which there is a vertical drop of 170 feet. Only the more intrepid would venture into a guano bucket to be lowered into a bat-inhabited chamber.

An interior survey which will be made by the National Geographic Society expedition, taken with a topographic survey of the region, will show the thinnest places in the rock shell covering the Cavern and thus a favorable point for an artificial entrance will be selected.

Even the small portion of the Cavern traversed revealed that it is a natural wonder of foremost rank and it has been set aside by order of President Coolidge as a National Monument.

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contribution, she exchanged last year iron and steel goods, from penknives to rock crushers, textiles, tobacco, coal, paper (made from Canadian forests) and soap containing oil from Ceylon's own copra. Nearly fifty per cent of England's export products are said to go to Empire Colonies.

Exhibits to "Sell" Colonies to Empire

Australia's exhibits plans are typical of the efforts of every British colony and dominion to "sell" itself to the rest of the Empire. For eight months the island continent will have a "Little Australia" at Wembley. Agriculture, forestry, mineral and pastoral products, education, health, town planning and art, will each be allotted a special section in the Australian building. A vast refrigerating plant is being installed to show all the frozen products of Australia. In one gallery a huge restaurant will serve only Australian foods. Continuous motion pictures in the basement theater will show the whole range of Australian industry and agriculture. Even Australian sheep will be sheared before the spectators' eyes.

Chicago's epoch-marking World's Fair was known as the "white city" because, unlike most fairs, all the structures were architecturally similar with their designs worked in white plaster. Britain's Wembley exhibition will also be a white city but will not disappear as did Chicago's palaces, since all major structures are of concrete. The great stadium, one of the largest in the world today, which will be turned over to Boy Scouts of the Empire for the opening days, has been erected especially for the exhibition and will be a permanent convenience to near-by London. It seats 100,000 people and probably will sometime see the Olympic games. Although the Empire Exhibition will bring the dominions and colonies to England in miniature, it will still be a fairly large miniature since the grounds set aside cover 241 acres.

Form for Renewal of Bulletin Requests

Many requests for the Geographic News Bulletin were made for the year ending with this issue. If you desire the Bulletins continued kindly notify The Society promptly. The attached form may be used:

School Service Department
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Washington, D. C.

Kindly send ..... copies of the Geographic News Bulletin for the school year beginning with the issue of ....., for classroom use, to

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Tahiti, Land of Beautiful Women and Fire-Walking

INHABITANTS of Tahiti, one of the larger and better known islands in the terrestrial Milky Way of thousands of islands in the South Pacific, are reported to be demanding certain government reforms. Tahiti is the largest of the Society island group.

Tahiti women were extolled by early travelers as being the most beautiful in the Pacific Islands; their men still are fine physical specimens; and the early civilization of this isolated people has been one of the wonders of science.

The Tahitians knew some of the constellations, navigated by the positions of the stars, made progress in music which is startling, yet preserved many savage customs.

The late S. P. Langley, who visited the island nearly twenty years ago, tells in his diary of hearing songs and of seeing native dances and rites.

"The native women sing 'himinies' with some very striking effects," he wrote. "The voices have something plangent and metallic in them, yet are melodious and in harmony. In the first song, at the end of each verse, all stopped suddenly, giving the effect of the 'couac' of the opera singer. In all the verses there was an undertone beneath the song. This undertone continued alone for a few seconds at the end of each verse, after the superposed song was finished, and died out separately and slowly, like the drone of some great bagpipe.

Pantomime Dance of Harpooning Fish

"I went out to the public dancing and singing, in competition for prizes offered by the government. It takes place in the square before the government house, and everybody is there, either performing or looking on. Almost the whole population of the island has come.

"The chief interest among the islanders seems to lie in the competition of singing 'himinies,' and next to that, in the dancing, which is pantomimic as much as regular. In one very good dance by the islanders over thirty persons take part. They sit down in three rows, representing rowers in a canoe, while two scull and steer. They have paddles, and paddle to the sound of drums. A lookout man sweeps the horizon till he sees a big fish, and the canoe rows for him. One of the steerers sharpens a harpoon and passes it forward, and the fish (a man dressed in red) is harpooned. There is a tremendous time in pulling him in; he runs around and entangles the line among the bystanders, and finally he gets a second harpoon in him, is hauled on board, and (in pantomine) cut up with an ax, dismembered, and eaten by the crew. Everybody is in motion, but it is rather a pantomime than a dance.

"I went to see preparations for the fire-walking. A shallow pit is dug about 9 feet by 20 feet by 18 inches deep. This is to be filled with firewood, and the stones heaped on the wood. These are smooth, water-worn, volcanic stones of varying size, but all rather large and weighing, at a guess, from 15 to 50 pounds.

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Desert Plants Near Cave Invite Study

The plants near Carlsbad Cavern add picturesque quality to the landscape and invite scientific study. There are thorn bushes and thorn trees; Spanish-bayonets and Spanish-daggers. The predominating characteristic is thorniness. There are pricklypears and cats-claws; sagebrush and greasewood; thorny mesquites and screwbeans.

The sotol grows near Carlsbad Cavern. Formerly the natives roasted the heads for food, after removing the saw-blade leaves. The long, tough leaves are used for thatching and making baskets, mats and rough cordage.

The Cavern itself is exceptional; and it is surrounded by features which enhance its future scenic value. Southeastern New Mexico, little known and seldom visited, has mountains nearly 10,000 feet high.

Carlsbad Cavern is one of a dozen or more caverns in Guadalupe Mountains, others are known to be of phenomenal size, and it may be that Carlsbad is connected with some of these by underground passages.

Bulletin No. 2, April 14, 1924.

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WOMEN ASSORTING COFFEE: NICARAGUA

Coffee is one of the principal agricultural products of Nicaragua, as of other Central American states. (See Bulletin No. 4.)

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The Nicaraguan Canal Route

WHETHER a Nicaraguan Canal will be built is a question which only the future can answer; but it has been so continuously discussed and its possible site so thoroughly surveyed that the term "Nicaraguan Canal route" is easily described.

The Panama Canal, if one leaves its locks and small artificial lake out of consideration, may be considered the American Suez; for it is relatively short and direct. The proposed Nicaragua route—again ignoring locks—must be compared with the Turkish straits; it is relatively long, and has in its course a great natural inland sea from which narrow shipways are projected.

Utilizing One of North America's "Great Lakes"

One of the principal reasons for choosing the Panama route for canal building was the proximity of the Nicaragua route to an earthquake and volcano zone. The Panama Canal ships now move every foot of the interocean way through great ditches that were dug, locks that were built, or a lake that was created by men. The Chagres River was turned aside to make a lake and even its bed was discarded. If a Nicaraguan canal were built according to existing plans, it would entail much excavation and lock building, but work that nature had already done would be utilized to a marked degree.

From the Atlantic end a canal would have to be excavated, largely through lowlands, for some 50 miles, for the lower reaches of the San Juan River are clogged with sand brought down from the uplands of Costa Rica. Locks would then raise the waterway to the 106-foot level of the lake. Ships would be transferred into the San Juan River, dammed at this point, and would move up its slack water for approximately 45 miles to Lake Nicaragua. This lake is a really large body of water—one of America's "Great Lakes"—though far distant from its peers. It is 100 miles long and 45 wide at the broadest point, and is the most extensive body of fresh water in North America south of Lake Michigan. For 70 miles ships would use the waters of Lake Nicaragua. Then would come the descent to the Pacific through a canal and locks covering the dozen miles or more of narrow isthmus that divides the lake from the ocean.

An Easy Drop Into the Pacific

The river and lake portion of the route above the dam, however, would not all be in readiness for use without the expenditure of labor. Of the 45 miles of river, 28 would require improvement, while a channel would have to be dredged through a score of miles of the lake near the river outlet where silt has accumulated.

The Pacific side of the canal would present relatively few difficulties. The narrow divide at the point crossed by the canal route rises only 44 feet above the lake level. Altogether the canal route, from deep water to deep water, would be about 180 miles long. The passage of ships would require more than 24

Fire-Walking Led by Native Priest

"The fire there, I am told, invariably burned for four or five days before, and the stones became coated with lime. I learn that on one occasion, the French authorities having forbidden the priest to perform in his usual place, he made the 'oven' of other stones, heating them for 36 hours. On attempting to cross, he walked only part of the way and ran the rest. His two disciples and a woman also ran across, and the woman's feet were so badly burned that she was laid up for a week. The prophet and his disciples declined to have their feet examined, and cleared out of sight.

"When the priest came in, the stones on the side of the pile would bear to be touched by the hand. The aids began to turn the stones over with long green poles which burned at the ends. The upper stones were none of them red-hot on top; the lower ones, two layers deep, however, could be seen to glow between the others, but they were only near red-hot in the center.

"The old priest, Papa-Ita, beat the near stones with a large bunch of Ti leaves three times, and then began to walk through the middle rather hurriedly, followed by two acolytes, who appeared to shun the hot central ridge, and walked along the sides. Then he walked back, followed by several; then back once more with an increasing crowd, most of whom avoided the center. One white boy took off his shoes, but could not stand the heat upon his bare feet, and stopped.

"At this point (i.e., after the second passage forward and back), I had the hottest stone of the pile in the center, on which the feet had certainly rested several times, hauled out and placed in a bucket of water. The stone was much larger than I had reckoned or wished. A trifle of the water was spilled by the plunge, and the rest boiled hard and continued to do so for about 12 minutes. At the end of that time the stone was still too hot to handle, and I sent to the ship for a sack to hold it, directing the remaining water to be measured. It was a long stone; the lower part had been immersed in the central fire, and it was certainly much hotter than the average center stones."

Bulletin No. 3, April 14, 1924.

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Georgia, a Different One Than You Know About

GEORGIA, not in Dixie, but Georgia, Russia, which made the world listen to its plea, when its representatives appeared before the makers of the Versailles Treaty asking for their country's recognition as a separate nation, is once more demanding attention. Its represenatives have asked the League of Nations to restrain the Soviet government from limiting the liberty of Georgia. Six Georgian priests of the Greek Orthodox church have recently been sentenced to imprisonment for alleged resistance to the Soviet government.

Georgia is important in the Near East because it controls important railway lines which connect with the Caspian oil fields.

Where Noah's Sons Founded Town

Of all the varied peoples who inhabit that rabbit warren of humanity, the Caucasus, the Georgians are most interesting. With the Armenians, they form an important outpost against Turanian dangers. The great mountains that sheltered Shamyl and many another patriot have shut off the various tribes and races in secluded valleys, where they have retained their peculiar customs. Thus the mountains of Daghestan have kept that recluse among nations "an island in a sea of history."

But Georgia has been more or less fortunate, for the same pass that is now used by the wonderful Georgian Military Road, with its matchless views, has been the pathway for innumerable historic movements, and the valley which is now followed by the railway from Batum to Baku has been the caravan route of countless traders.

A few miles south of the snow ridge of the Caucasus, there is a wretched little village whose fame should be world-wide. Mtzkhet has claims to antiquity that make New England towns appear as embryos, for its citizens assert it was founded by one of Noah's sons, who strolled over from Mount Ararat one day after the waters had subsided and chose this site because of its excellent drainage.

Beneath its terraced homes two rivers unite—the clear, cold Aragwa, hastening from its birthplace in the eternal snows of the Caucasus to the hot depression of the Caspian, and the Kura, sullied and dirty, swinging in from the west to make its way down the Tiflis depression and across the barren Transcaucasian steppe, between the mountains of Daghestan and the highlands of Armenia.

Georgians Look Like Super-Men

Damascus has a verdant freshness about it that is as deceptive as grease paint, but Mtzkhet stands out from green fields and pastures new like a weathered, sharp-bowed fishing smack in an emerald sea.

On a rock cliff opposite this quiet city with the cat-fight name the kings of Georgia erected their first castle, but it was in Mtzkhet itself that Georgia was born. The Georgians admit their descent from the Accadians and Sumerians, but there is nothing in their appearance or personality to indicate their

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hours as against 12 or less at Panama. Such a canal could be reached, on the other hand, more quickly from ports of the United States.

One other contrast exists between the Panama Canal and the Nicaraguan route. The former traverses a country of relatively limited potential wealth. A canal through Nicaragua would doubtless be a strong factor in the development of that country, opening up its vast forests of both hard and soft woods and tapping its coffee and cacao plantations and its mines. Lake Nicaragua is already an important inland waterway, and near its banks are some of the chief cities of the republic.

Bulletin No. 4, April 14, 1924.

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WHERE PEOPLE LIVED IN CAVES. TROGLODYTE HOUSES NEAR MT. ARGAEUS, ASIA MINOR

The cliffs are mere shells and they contain thousands on thousands of chambers, churches, chapels, and graves. In this picture one sees five entrances, while all the numerous openings are windows. Story rises upon story. Thousands of pigeons now have their homes in these dusky chambers in the rocks, for at this place they are no longer inhabited by man. Notice the windows painted on the outside. In the numerous chapels pictures of Greek saints may still be seen on the walls; many of the saints represented in the pictures are named in Greek. (See Bulletin No. 2.)

descent from anything. They seem to have ascended from the plane of other men.

Militant of appearance, handsome of countenance, chivalrous, and unfamiliar with hard toil, these lovers of wine, women, and song are as princely in bearing as the unwashed Bedouin before his desert tent. Part of them are mountaineers—the most picturesque brigands that ever carried an arsenal at their belts. The rest are agricultural people, whose contact with the soil does not prevent them from holding their chests up like soldiers in uniform.

Tiflis' Main Street Owned by Armenians

Georgian men are handsomer than their wives, and in Georgia the male wears the fine plumage. But he treats his wife and daughters well and never allows them to act as servants.

St. Nina established a Christian church in Mtzkhet about 347 A. D., which was for many years a center for Christian culture. The Georgians assert that they were Christians before the Armenians, and vice versa; yet the princely but spendthrift Georgians and the oppressed but wealthy Armenians have been so much mixed throughout their history that there are today persons who call themselves Georgians and who speak Georgian, but who attend the Armenian church, while Armenians speaking Armenian are often found in Georgian churches.

The Georgians are good hosts and the Armenians are shrewd business men. That is why the Golovinsky Prospekt in Tiflis, one of the proudest avenues in the world, is owned by Armenians, and brightened by the presence of the Georgians.

Bulletin No. 5, April 14, 1924.

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AN ANCIENT PLOW AT DUSKET, ON THE GEORGIAN MILITARY ROAD, DRAWN BY TWELVE OXEN, WITH THREE DRIVERS AND A PLOW-MAN TO DIRECT THE PLOW. (See Bulletin No. 5.)